Instructions for Creating 1990-2000 Occupation Crosswalks, Using the Occupation Crosswalk Template

April 30, 2003

Introduction

On this website you will find national-level industry and occupation (I&O) crosswalks that provide 1990 Census I&O data converted into their equivalent Census 2000 categories, and a comparison of these 1990 data to 2000 data. Data users may want to do similar comparisons for sub-national geographic areas, such as states or counties. Using the "Template" described in these instructions, data users can apply national conversion factors to 1990 data for any geographic areas (see the "warning" below, however). The instructions below assume that a data user trying to follow these instructions is familiar with the Microsoft Office Suite, including Excel spreadsheets, but is not completely familiar with the Census Bureau's data sets as found on our American FactFinder (AFF) website. You can use these instructions to create other spreadsheets instead of Excel, but you may have to make formatting adjustments not described here.

These instructions also work best if you use Microsoft Internet Explorer to download data from the AFF. These instructions will explain some differences in other Internet browsers, but it is virtually impossible to anticipate all the variations that different browsers can cause. **We strongly recommend that you first download the template and print these instructions,** then match the illustrations of each step to what you see on your own computer screen to be sure you are at the right place. Note, however, that the Census Bureau changes the appearance of the AFF pages at times, so what you see on your screen may not match exactly what is shown in these instructions.

AFF now provides data from both the 1990 Census and Census 2000. The data sets used to display I&O data are the 1990 Summary Tape File 3 (STF-3) and 2000 Summary File 3 (SF-3). The Census 2000 SF-3 on the AFF shows I&O data in "Detailed Tables" and "Quick Tables," which include a "Demographic Profile of Economic Characteristics." The Profile provides a subset of the categories found in the detailed tables.

For industry and occupation data, however, you cannot compare the categories directly across the two years. The wording of the categories is different, and, even when the words *appear* to be the same, the definitions of the categories are sometimes different. For example, "Managers" and "Farming occupations" were defined differently in 1990 than in 2000, even though these words appear in tables from both censuses. These differences were caused by the revisions to the Standard Occupational Classification (SOC) and to the North American Industry Classification System (NAICS). The Census 2000 I&O categories were derived from these two standard classifications.

The crosswalks described in these instructions will convert the 1990 STF-3 data to a 2000 basis by redistributing them into the 2000 SF-3 categories. The crosswalks perform this comparison and calculate the changes from 1990 to 2000 according to the Census 2000 SF-3 categories. At the same time they calculate similar comparisons for the categories shown in the 2000 "Quick Tables."

Warning. The formulas contained within this crosswalk template are based on nationwide changes between 1990 and 2000 categories, as measured by two sources: the Census 2000 *Classified Index of Occupations*, and a sample of responses from the 1990 Census that were "double-coded" into both the 1990 and 2000 Census categories. Different crosswalks could be created based on many different variables, including geography, sex, and race. For example, the crosswalk for industrial and occupational distributions is likely different in New York compared to Kansas, and for men compared to women. To create many different crosswalks depending on all characteristics, however, would require a very large sample controlled for all these variables. Neither financial nor human resources were available to create and analyze such a large sample. For this reason, data users using this template will have to apply the same adjustment factors and distributions to all levels of geography, both sexes, and all other characteristics, even though we know this is not a perfect method for comparing I&O data in all circumstances.

It is also possible to convert the 2000 categories into those for 1990 in order to make comparisons over time. We recommend against this conversion for two reasons: 1) the conversion factors used in these crosswalks were based on a sample of responses from the 1990 Census that were re-coded into the 2000 classifications[1]; and 2) intuitively it seems better to move forward to the present and express the labor force of 1990 in 2000 terms, since Census 2000 is more up-to-date.
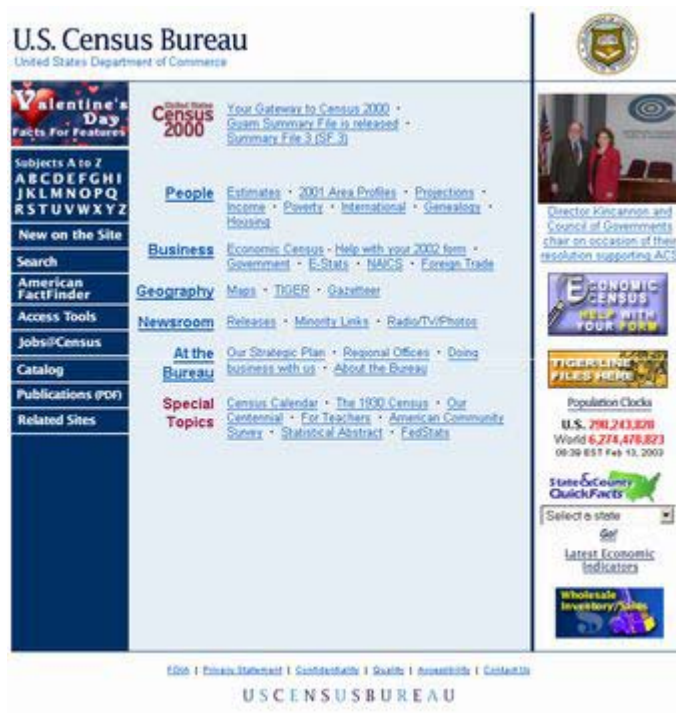
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[1] A similar sample from Census 2000 is still being re-coded, but is not yet available for analysis.

Instructions

Part 1: Getting 1990 and 2000 Occupation Data from the Census Bureau Website

1. Go to the Census Bureau Home Page http://www.census.gov (Figure 1 below)
   - Click on American FactFinder on the left side of the Home page.

   Figure 1 (note that this and other web pages may change from time to time):

Start by getting the 1990 data, which we will adjust to make them comparable to the 2000 data:

2. American FactFinder Page (Figure 2)
    - Under "Data Sets" near the center of the page, click on "1990 Summary Tape File 3."

Figure 2:

3. Decennial Census Data Sets Page
    - The button for the selected data set will already be marked.
    - Click on "Detailed Tables" at the right of the screen.

Figure 3 (next page):

U.S. Census Bureau

Data Sets

| Decennial Census | Decennial Supplementary Surveys | American Community Survey | Economic Censuses and Surveys | Population Estimates |

Select a data set below, or download data sets via FTP | Future Releases

2000 ○ **Census 2000 Summary File 3 (SF 3) - Sample Data**

Summary File 3 presents detailed population and housing data (such as place of birth, education, employment status, income, value of housing unit, year structure built) collected from a 1-in-6 sample and weighted to represent the total population.

Comparing SF 3 Estimates with Corresponding Values in SF 1 and SF 2

○ **American Samoa Summary File**

This file presents information about housing units and people in American Samoa. All questions were asked of all persons, so both basic subjects (in SF1 and SF 2 stateside) and detailed subjects (in SF 3 and SF 4 stateside) are included.

○ **Guam Summary File**

This file presents information about housing units and people in Guam. All questions were asked of all persons, so both basic subjects (in SF1 and SF 2 stateside) and detailed subjects (in SF 3 and SF 4 stateside) are included.

○ **U.S. Virgin Islands Summary File**

This file presents information about housing units and people in the U.S. Virgin Islands. All questions were asked of all persons, so both basic subjects (in SF1 and SF 2 stateside) and detailed subjects (in SF 3 and SF 4 stateside) are included.

○ **Census 2000 Summary File 2 (SF 2) 100-Percent Data**

Population and housing characteristics iterated for many detailed race and Hispanic or Latino categories, and American Indian and Alaska Native tribes.

○ **Census 2000 Summary File 1 (SF 1) 100-Percent Data**

Summary File 1 presents counts and information [age, sex, race, Hispanic/Latino origin, household relationship, whether residence is owned or rented] collected from all people and housing units.

○ **108th Congressional District Summary File (Sample)**

Data from the Census 2000 Summary File 3 have been retabulated for the newly drawn 108th Congressional District boundaries.

○ **108th Congressional District Summary File (100-Percent)**

Data from the Census 2000 Summary File 1 have been retabulated for the newly drawn 108th Congressional District boundaries.

○ **Census 2000 Redistricting Data (P.L. 94-171) Summary File**

The Redistricting Data (P.L. 94-171) Summary File contains summary statistics on counts of the total population, for the population 18 years and over, for 63 racial categories, and for Hispanic or Latino origin.

1990 ○ **1990 Summary Tape File 1 (STF 1) - 100-Percent data**

Summary Tape File 1 (STF 1) contains 100% data on age, race, sex, marital status, Hispanic origin, household type and relationship, occupancy/vacancy status, tenure, units in structure, contract rent, meals included in rent, value, and number of rooms.

⊙ **1990 Summary Tape File 3 (STF 3) - Sample data**

Summary Tape File 3 (STF 3) contains sample data weighted to represent total population for 34 population items and 27 housing items and 100-percent counts and unweighted sample counts for total persons and total housing units.

Select from the following options:

Detailed Tables
Quick Tables
Thematic Maps
Reference Maps

Enter a table number
List all tables
List all maps

About this data set
Technical Documentation (PDF)

The letters PDF or symbol [PDF] indicate a document is in the Portable Documer you will need the Adobe® Acrobat® Reader, which is available for **free** from the A

4. Screen for "Detailed Tables – Select Geography" (Figure 4)
- Select a geographic type (e.g. "State").
- Select the geographic areas(s) (e.g., "Maryland").
- Click "Add."
- Click "Next."

Figure 4:

5. Screen for "Detailed Tables – Select Tables" (Figure 5)
   - Scroll down list of tables and select Table "P078, Occupation".
   - Click "Add"
   - Click "Show Table"

   Figure 5:

6. Page showing the table selected (Figure 6)
   - In the upper right part of the screen (on the same line as "Detailed Tables"), put the cursor on "Print/Download" and click "Download."

Figure 6:

U.S. Census Bureau — American FactFinder

Main | Search | Feedback | FAQs | Glossary | Help

Detailed Tables | Change Selections | Print / Download | Related Items
Print   ad Query | Save Query
▸ Download

P078. OCCUPATION - Universe: Employed persons 16 years and over
Data Set: 1990 Summary Tape File 3 (STF 3) - Sample data

NOTE: For information on confidentiality, sampling error, nonsampling error, and definitions, see
http://factfinder.census.gov/home/en/datanotes/expstf390.htm.

	Maryland
Managerial and professional specialty occupations (000-202):	
Executive, administrative, and managerial occupations (000-042)	388147
Professional specialty occupations (043-202)	413610
Technical, sales, and administrative support occupations (203-402):	
Technicians and related support occupations (203-242)	116639
Sales occupations (243-302)	267288
Administrative support occupations, including clerical (303-402)	448356
Service occupations (403-472):	
Private household occupations (403-412)	12160
Protective service occupations (413-432)	55332
Service occupations, except protective and household (433-472)	228955
Farming, forestry, and fishing occupations (473-502)	33836
Precision production, craft, and repair occupations (503-702)	256711
Operators, fabricators, and laborers (703-902):	
Machine operators, assemblers, and inspectors (703-802)	92108
Transportation and material moving occupations (803-863)	91271
Handlers, equipment cleaners, helpers, and laborers (864-902)	76929

U.S. Bureau of the Census
1990 Census of Population and Housing

Standard Error/Variance documentation for this dataset:
Variance Document for STF 3 (PDF 84KB)

The letters PDF or symbol [PDF] indicate a document is in the Portable Document Format (PDF). To view the file you will need the Adobe® Acrobat® Reader, which is available for **free** from the Adobe web site.

7. Screen for "Detailed Tables – Download" (Figure 7)

    Note: **the instructions shown in this step should work when using Internet Explorer, but may NOT work exactly as described for Netscape and other internet browsers. If you are not using Internet Explorer, skip Figure 7 and see further instructions after Instruction 8 below.**

    - Click the button for "Comma delimited (.csv)." (It may already be filled.) Do not click the button called "Microsoft Excel (.xls)," even though that may seem logical.
    - Click "OK."

    Figure 7:

8. At this point an inset should appear that asks whether you want to open or save this file. Open the file first to be sure you have the right table. It should look something like Figure 8 below, but the column widths may appear squeezed.
   - Adjust the column widths if desired, although this is not necessary for the next steps. If adjusted, the table will look more like Figure 8.
   - Now save the file. In the upper left toolbar, click "File," and then "Save As." **It is absolutely necessary that you save the file in a place where you can find it later by following steps a-e directly below.**
     a. **Designate a hard drive** (for example, "C" or "D").
     b. **Designate a directory or folder in which to save your file.**
     c. **Change the file type to Excel**.
     d. Your computer may have given the file a default name like "DownloadDT." **Change the file name to one that you will recognize,** like "1990occdata-MD."
     e. Click "Save."

Note: **For Netscape and other browsers, the "Comma delimited" button may not give you the same results as Internet Explorer. Instead use the button for "Tab delimited," save the file as described in instruction 8 above, and use a "Text Import Wizard" or similar tool provided in the browser to open the file in Excel.**

Regardless of which browser you use, you want the final result to look like Figure 8.

Figure 8:

P078. OCCUPATION - Universe: Employed persons 16 years and over
Data Set: 1990 Summary Tape File 3 (STF 3) - Sample data
NOTE: For information on confidentiality, sampling error, nonsampling error, and
definitions, see http://factfinder.census.gov/home/en/datanotes/expstf390.htm.

	Maryland
Managerial and professional specialty occupations (000-202):	
Executive, administrative, and managerial occupations (000-042)	388147
Professional specialty occupations (043-202)	413610
Technical, sales, and administrative support occupations (203-402):	
Technicians and related support occupations (203-242)	116639
Sales occupations (243-302)	267288
Administrative support occupations, including clerical (303-402)	448356
Service occupations (403-472):	
Private household occupations (403-412)	12160
Protective service occupations (413-432)	55332
Service occupations, except protective and household (433-472)	228955
Farming, forestry, and fishing occupations (473-502)	33836
Precision production, craft, and repair occupations (503-702)	256711
Operators, fabricators, and laborers (703-902):	
Machine operators, assemblers, and inspectors (703-802)	92108
Transportation and material moving occupations (803-863)	91271
Handlers, equipment cleaners, helpers, and laborers (864-902)	76929
U.S. Bureau of the Census	

Next get the Census 2000 data. Go BACK to the Census Data Sets page (Figure 9). Steps 9-16 below for the 2000 data are virtually identical to steps 3-8 above for the 1990 data.
You can also go back to the American FactFinder page (Figure 2) and click on "2000 Summary File 3" under "Data Sets," and this also will take you to the Data Sets page.

9. Decennial Census Data Sets Page (Figure 9)
   - Click on the button for "Census 2000 Summary File 3 (SF 3) – Sample Data."
   - Click on "Detailed Tables" at the right.

Figure 9:

10. Screen for "Detailed Tables – Select Geography" (Figure 10)
    - Select a geographic type (e.g. "State").
    - Select the geographic areas(s) (e.g., "Maryland").
    - Click "Add."
    - Click "Next."

Figure 10:

11. Screen for "Detailed Tables – Select Tables" (Figure 11)
- Scroll down list of tables and select Table "P50, Sex by Occupation for the Employed Civilian Population 16+ Years".
- Click "Add."
- Click "Show Table."

Figure 11:

12. Page showing the table selected (Figure 12)
- In the upper right part of the screen (on the same line as "Detailed Tables"), put the cursor on "Print/Download" and click "Download."

Figure 12 (this is only part of a much larger table):

U.S. Census Bureau American FactFinder

Main | Search | Feedback | FAQs | Glossary | Help

Detailed Tables | Options | Change Selections | Print / Download | Related Items

Print   ad Query | Save Query
▸ Download

P50. SEX BY OCCUPATION FOR THE EMPLOYED CIVILIAN POPULATION 16 YEARS AND OVER
[95] - Universe: Employed civilian population 16 years and over
Data Set: Census 2000 Summary File 3 (SF 3) - Sample Data

NOTE: Data based on a sample except in P3, P4, H3, and H4. For information on confidentiality protection, sampling error, nonsampling error, and definitions see http://factfinder.census.gov/home/en/datanotes/expsf3.htm.

	Maryland
Total:	2,608,457
Male:	1,328,420
Management, professional, and related occupations:	522,086
Management, business, and financial operations occupations:	220,804
Management occupations, except farmers and farm managers	151,463
Farmers and farm managers	5,119
Business and financial operations occupations:	64,222
Business operations specialists	31,678
Financial specialists	32,544
Professional and related occupations:	301,282
Computer and mathematical occupations	77,035
Architecture and engineering occupations:	53,469
Architects, surveyors, cartographers, and engineers	41,651
Drafters, engineering, and mapping technicians	11,818
Life, physical, and social science occupations	28,207
Community and social services occupations	16,043
Legal occupations	24,014

13. Screen for "Detailed Tables – Download" (Figure 13)

    Note: **as with Step 7 above, the instructions shown in this step should work when using Internet Explorer, but may NOT work exactly as described for Netscape and other internet browsers. If you had to use the alternate instructions provided after Instruction 8 above to download the 1990 data, then use the same instructions here instead of 13 and 14 to download the 2000 data. The final result should look like Figure 14 below.**

    - Click the button for "Comma delimited (.csv)." (It may already be filled.) Do not click the button called "Microsoft Excel (.xls)," even though that may seem logical.
    - Click "OK."

    Figure 13:

14. At this point an inset should appear that asks whether you want to open or save this file. Open the file first to be sure you have the right table. It should look something like Figure 14 below, but the column widths may appear squeezed.

   - Adjust the column widths if desired, although this is not necessary for the next steps. If adjusted, the table will look more like Figure 14.
   - Now save the file. In the upper left toolbar, click "File," and then "Save As." **It is absolutely necessary that you save the file in a place where you can find it later by following steps a-e directly below.**
     a. **Designate a hard drive** (for example, "C" or "D").
     b. **Designate a directory or folder in which to save your file.**
     c. **Change the file type to Excel**.
     d. Your computer may have given the file a default name like "DownloadDT." **Change the file name to one that you will recognize,** like "2000occdata-MD."
     e. Click "Save."

Figure 14:

P50. SEX BY OCCUPATION FOR THE EMPLOYED CIVILIAN POPULATION 16 YEARS AND OVER [95] -
Universe: Employed civilian population 16 years and over
Data Set: Census 2000 Summary File 3 (SF 3) - Sample Data

NOTE: Data based on a sample except in P3, P4, H3, and H4. For information on confidentiality protection, sampling error, nonsampling error, and definitions see
http://factfinder.census.gov/home/en/datanotes/expsf3.htm.
□

	Maryland
Total:	2,608,457
Male:	1,328,420
Management, professional, and related occupations:	522,086
Management, business, and financial operations occupations:	220,804
Management occupations, except farmers and farm managers	151,463
Farmers and farm managers	5,119
Business and financial operations occupations:	64,222
Business operations specialists	31,678
Financial specialists	32,544
Professional and related occupations:	301,282
Computer and mathematical occupations	77,035
Architecture and engineering occupations:	53,469
Architects, surveyors, cartographers, and engineers	41,651
Drafters, engineering, and mapping technicians	11,818
Life, physical, and social science occupations	28,207
Community and social services occupations	16,043
Legal occupations	24,014
Education, training, and library occupations	39,483

Part 2: Copying the 1990 and 2000 Data into the Template and Creating the Crosswalks

1. If you have not already copied or downloaded the Template, go back to the Occupation Table Crosswalk Menu page from which you downloaded these instructions. Open the Template from this website (the third item on the Menu page). Most of the cells are blank, but some contain zeros. The template will automatically compute data for the zero cells once you start copying data to the blank cells. Copy data from other files only into the blank cells, as described in the next steps.

2. Go to the file you created containing the 1990 data (e.g. "1990occdata-MD"). Use the "Window" feature in your top toolbar to toggle between files. Data (numbers) should appear in column B under the name of the geographic area you selected (e.g., "Maryland"). The first line with a number should be the one for "Executive, administrative, and managerial occupations." The line above this one, "Managerial and professional specialty occupations" is blank.

   - Copy the cells in column B of this table for "Executive, administrative, and managerial occupations" <u>through</u> "Handlers, equipment cleaners, helpers, and laborers" (16 cells total) into Template Section 1, column **D**, rows **13-28**. (Note: some cells are blank.)
   - The Template Section 1 should look like Figure 15. At this point the Template will automatically provide a Total in cell D11, transfer figures to Section 3, convert the data to the 2000 categories in Sections 4 and 5, and copy the results to Section 6.

Figure 15:

1990-2000 Census Tabulation Crosswalk Template: Occupation		
Area:		
Level 1: Most Basic, Broadest Categories		
Direction: Changes from 1990 Categories to 2000 Categories (1990-2000)		
Section 1: Copy the Following Data From the 1990 Census STF-3 Detailed Tables:		
P078. OCCUPATION - Universe: Employed persons 16 years and over		
Note: 1990 STF-3 provides data for Total Employed only.		
		Total
Employed persons 16 years and over		2,481,342
Managerial and professional specialty occupations (000-202):		
Executive, administrative, & managerial occs (000-042)		388147
Professional specialty occupations (043-202)		413610
Technical, sales, and administrative support occs (203-402):		
Technicians and related support occupations (203-242)		116639
Sales occupations (243-302)		267288
Administrative support occupations, incl. clerical (303-402)		448356
Service occupations (403-472):		
Private household occupations (403-412)		12160
Protective service occupations (413-432)		55332
Service occupations, exc. protective & household (433-472)		228955
Farming, forestry, and fishing occupations (473-502)		33836
Precision production, craft, and repair occupations (503-702)		256711
Operators, fabricators, and laborers (703-902):		
Machine operators, assemblers, and inspectors (703-802)		92108
Transportation and material moving occupations (803-863)		91271
Handlers, equipment cleaners, helpers, & laborers (864-902)		76929

Go to the file you created containing the 2000 data (e.g. "2000occdata-MD"). Data (numbers) should appear in column B under the name of the geographic area you selected (e.g., "Maryland"). The first line with a number should be the one for "Total:."

- Copy the 47 cells in column B for "Male:" through "Material moving workers" (omit "Total" and stop just before "Female") to Template Section 2, column **I**, rows **11-57**.
- Copy the next 47 cells in column B for "Female:" through "Material moving workers" to Template Section 2, column **J**, rows **11-57**.
- The Template will automatically compute totals in section 2, column K, and transfer figures to Section 6. Template Sections 1 and 2 should look like Figure 16 on the following page.

Figure 16 (next page):

1990-2000 Census Tabulation Crosswalk Template: Occupation
Area: Maryland
Level 1: Most Basic, Broadest Categories
Direction: Changes from 1990 Categories to 2000 Categories (1990-2000)

Section 1: Copy the Following Data From 1990 Census STF-3, Detailed Tables:
P078. OCCUPATION - Universe: Employed persons 16 years and over

Note: 1990 STF-3 provides data for Total Employed only.

	Total
Employed persons 16 years and over	2,481,342
Managerial and professional specialty occupations (000-202):	
Executive, administrative, & managerial occs (000-042)	388,147
Professional specialty occupations (043-202)	413,610
Technical, sales, and administrative support occs (203-402):	
Technicians and related support occupations (203-242)	116,639
Sales occupations (243-302)	267,288
Administrative support occupations, incl. clerical (303-402)	448,356
Service occupations (403-472):	
Private household occupations (403-412)	12,160
Protective service occupations (413-432)	55,332
Service occupations, exc. protective & household (433-472)	228,955
Farming, forestry, and fishing occupations (473-502)	33,836
Precision production, craft, and repair occupations (503-702)	256,711
Operators, fabricators, and laborers (703-902):	
Machine operators, assemblers, and inspectors (703-802)	92,108
Transportation and material moving occupations (803-863)	91,271
Handlers, equipment cleaners, helpers, & laborers (864-902)	76,929

Section 2: Copy the Following Data From Census 2000 SF-3 Detailed Tables:
P50. SEX BY OCCUPATION FOR THE EMPLOYED CIVILIAN POPULATION 16 YEARS AND OVER

Note: 2000 SF-3 provides data for employed by sex; copy data into Male/Female columns; this table will compute Total column.

	Male:	Female:	Total:
Civilian Employed Population 16 and Over:	1,328,420	1,280,037	2,608,457
Management, professional, and related occupations:	522,086	554,147	1,076,233
Management, business, and financial operations occupations:	220,804	195,106	415,910
Management occupations, except farmers & farm managers	151,463	110,110	261,573
Farmers and farm managers	5,119	1,415	6,534
Business and financial operations occupations:	64,222	83,581	147,803
Business operations specialists	31,678	45,345	77,023
Financial specialists	32,544	38,236	70,780
Professional and related occupations:	301,282	359,041	660,323
Computer and mathematical occupations	77,035	44,185	121,220
Architecture and engineering occupations	53,469	8,744	62,213
Architects, surveyors, cartographers, and engineers	41,651	6,104	47,755
Drafters, engineering, and mapping technicians	11,818	2,640	14,458
Life, physical, and social science occupations	28,207	19,911	48,118
Community and social services occupations	16,043	28,083	44,126
Legal occupations	24,014	21,867	45,881
Education, training, and library occupations	39,483	111,547	151,030
Arts, design, entertainment, sports, and media occupations	27,707	28,470	56,177
Healthcare practitioners and technical occupations:	35,324	96,234	131,558
Health diagnosing and treating practitioners & technical occs	27,024	68,060	95,084
Health technologists and technicians	8,300	28,174	36,474
Service occupations:	161,122	202,711	363,833
Healthcare support occupations	5,265	39,823	45,088
Protective service occupations:	50,943	15,593	66,536
Fire fighting, prevention, and law enforcement workers, incl. superv	31,543	7,327	38,870
Other protective service workers, including supervisors	19,400	8,266	27,666
Food preparation and serving related occupations	47,814	55,520	103,334
Building and grounds cleaning and maintenance occupations	42,766	32,460	75,226
Personal care and service occupations	14,334	59,315	73,649
Sales and office occupations:	231,046	457,682	688,728
Sales and related occupations	130,464	130,941	261,405
Office and administrative support occupations	100,582	326,741	427,323
Farming, fishing, and forestry occupations	5,117	1,769	6,886
Construction, extraction, and maintenance occupations:	215,519	8,836	224,355
Construction and extraction occupations:	128,296	3,602	131,898
Supervisors, construction and extraction workers	18,391	644	19,035
Construction trades workers	109,199	2,904	112,103
Extraction workers	706	54	760
Installation, maintenance, and repair occupations	87,223	5,234	92,457
Production, transportation, and material moving occupations:	193,530	54,892	248,422
Production occupations	83,438	36,534	119,972
Transportation and material moving occupations:	110,092	18,358	128,450
Supervisors, transportation and material moving workers	3,648	989	4,637
Aircraft and traffic control occupations	2,150	242	2,392
Motor vehicle operators	60,762	8,463	69,225
Rail, water and other transportation occupations	5,918	705	6,623
Material moving workers	37,614	7,959	45,573

At this point the converted 1990 data will appear next to the 2000 data in Template Section 6. Section 6 also computes the 1990-2000 changes in terms of the 2000 Census categories. Insert the geographic area name in row 2, and save the file with a new name. Sections 5 and 6 of the final product should look like Figure 17 on the following page.

Figure 17 (next page):

Section 5: Conversion to 2000 "Quick" Table & Profile Categories (6)

Note: all data in this table add up to the 1990 totals

Category	Label	2000 Codes	Number Employed		
Management, professional, & related occs	2KMPR	001-354	893,212		
Service occs	2KSVC	360-465	319,246		
Sales & office occs	2KSLO	470-593	741,369		
Farming, fishing, & forestry occs	2KFFF	600-613	12,744		
Construction, extraction, & maintenance occs	2KCEM	620-762	211,051		
Production, transportation, & material moving occs	2KPTM	770-975	303,719		
TOTAL			2,481,342		

Section 6: Comparison of 1990 to 2000, Using Census 2000 Occupational Category Definitions

SF-3 / Demographic Profile Category (Profile categories in bold)		Number Employed, 1990 Census	Number Employed, Census 2000	Percent Change, 1990-2000
Management, professional, & related occs		893,212	1,076,233	20.5%
Management, business, and financial operations occupations:		365,290	415,910	13.9%
Management occupations, except farmers & farm managers		233,869	261,573	11.8%
Farmers and farm managers		11,841	6,534	-44.8%
Business and financial operations occupations:		119,580	147,803	23.6%
Business operations specialists		58,074	77,023	32.6%
Financial specialists		61,505	70,780	15.1%
Professional and related occupations:		527,922	660,323	25.1%
Computer and mathematical occupations		39,028	121,220	210.6%
Architecture and engineering occupations:		77,909	62,213	-20.1%
Architects, surveyors, cartographers, and engineers		44,517	47,755	7.3%
Drafters, engineering, and mapping technicians		33,393	14,458	-56.7%
Life, physical, and social science occupations		31,581	48,118	52.4%
Community and social services occupations		34,302	44,126	28.6%
Legal occupations		27,300	45,881	68.1%
Education, training, and library occupations		143,390	151,030	5.3%
Arts, design, entertainment, sports, and media occupations		55,759	56,177	0.7%
Healthcare practitioners and technical occupations:		118,653	131,558	10.9%
Health diagnosing and treating practitioners & technical occs		84,548	95,084	12.5%
Health technologists and technicians		34,105	36,474	6.9%
Service occupations:		319,246	363,833	14.0%
Healthcare support occupations		40,297	45,088	11.9%
Protective service occupations:		57,093	66,536	16.5%
Fire fighting, prevention, and law enforcement workers, incl. supervisors		31,487	38,870	23.4%
Other protective service workers, including supervisors		25,606	27,666	8.0%
Food preparation and serving related occupations		100,101	103,334	3.2%
Building and grounds cleaning and maintenance occupations		73,407	75,226	2.5%
Personal care and service occupations		48,347	73,649	52.3%
Sales and office occupations:		741,369	688,728	-7.1%
Sales and related occupations		278,067	261,405	-6.0%
Office and administrative support occupations		463,302	427,323	-7.8%
Farming, fishing, and forestry occupations		12,744	6,886	-46.0%
Construction, extraction, and maintenance occupations:		211,051	224,355	6.3%
Construction and extraction occupations:		128,022	131,898	3.0%
Supervisors, construction and extraction workers		16,180	19,035	17.6%
Construction trades workers		108,697	112,103	3.1%
Extraction workers		3,146	760	-75.8%
Installation, maintenance, and repair occupations		83,029	92,457	11.4%
Production, transportation, and material moving occupations:		303,719	248,422	-18.2%
Production occupations		169,143	119,972	-29.1%
Transportation and material moving occupations:		134,577	128,450	-4.6%
Supervisors, transportation and material moving workers		3,602	4,637	28.7%
Aircraft and traffic control occupations		4,174	2,392	-42.7%
Motor vehicle operators		66,516	69,225	4.1%
Rail, water and other transportation occupations		9,719	6,623	-31.9%
Material moving workers		50,566	45,573	-9.9%
TOTAL		2,481,342	2,608,457	5.1%